

ABSTRACT OF DISCLOSURE

An electrostatic chuck (ESC) for a wafer which directs a cooling gas to predetermined cooling areas of the wafer mounted on the chuck. Ring type sealing members divide the mounted wafer into the predetermined cooling areas and the predetermined cooling areas are independently supplied with a helium cooling gas. Each of the predetermined cooling areas is supplied through a separate conduit system wherein each conduit system has a single inlet into the chuck and a plurality of outlets which emit the helium gas into a respective one of the predetermined cooling areas. The plurality of outlets for each predetermined cooling area may communicate with the inlet via a respective plurality of branch conduits or via one or more branch conduits and a peripheral conduit which connects the plurality of outlets. By independently controlling the predetermined cooling areas, temperature variations on the wafer are effectively controlled.